# CITY OF INKOM (PWS 6030025)
# SOURCE WATER ASSESSMENT FINAL REPORT

**November 1, 2000**

## State of Idaho
## Department of Environmental Quality

## Executive Summary

Under the Safe Drinking Water Act Amendments of 1996, all states are required by the U.S. Environmental Protection Agency to assess every source of public drinking water for its relative sensitivity to contaminants regulated by the act. This assessment is based on a land use inventory of the designated assessment area and sensitivity factors associated with the wells and aquifer characteristics.

This report, *Source Water Assessment for the City of Inkom* describes the public drinking water system, the boundaries of the zones of water contribution, and the associated potential contaminant sources located within these boundaries. This assessment should be used as a planning tool, taken into account with local knowledge and concerns, to develop and implement appropriate protection measures for this source. **The results should not be used as an absolute measure of risk and they should not be used to undermine public confidence in the water system.**

The City of Inkom water system consists of two well sources. Total coliform bacteria were detected in the water sampling efforts of November 1993, February 1994, January 1995, and June 1999. Fecal coliform were detected in the water sampling efforts of January 1995. Nitrate concentrations ranging from 3.5 mg/l to 2.1 mg/l were detected in Well #2 from 1996 through 1999. Copper concentrations at 2.44 mg/L (action level is 1.3 mg/L) were measured in 1993 and 2.72 mg/L in 1994. The presence of the copper is mostly likely the result of copper piping. The potential contaminant sources within the delineation capture zones include a municipal wastewater discharge site, two underground storage tank sites, one leaking underground storage tank site, and one wastewater land application site. The final well ranking for Well #1 is high for inorganic and microbial contaminants and moderate for volatile organic contaminants and synthetic organic contaminants. Well #2 rated high for inorganic contaminants, volatile organic contaminants, microbial contaminants, and moderate for synthetic organic contaminants.

For the City of Inkom, source water protection activities should focus on implementation of practices aimed at keeping the distribution system free of microbial contaminants. The water system should also be aware of potential risks due to volatile and synthetic organics from the nearby underground storage tank facilities. A 2000 sanitary survey indicates that the wellhead and sanitary seal are maintained in good condition. Future well sites should be located in areas with as few potential sources of contamination as possible, and the site should be reserved and protected for this specific use. Management tools and activities can include regulatory approaches such as zoning ordinances, source prohibitions, and permits; or non-regulatory tools such as purchase of development rights or property, water conservation, and public education and information. Partnerships with state and local agencies and industry groups should be established and are critical to success. Due to the time involved with the movement of ground water, source water protection activities should be aimed at long-term management strategies even though these strategies may not yield results in the near term. Source water protection activities for agriculture should be coordinated with the Idaho State Department of Agriculture, the Soil Conservation Commission and Portneuf Soil and Water Conservation District, and the Natural Resources Conservation Service.

This assessment should be used as a basis for determining appropriate new protection measures or re-evaluating existing protection efforts. No matter what ranking a source receives, protection is always important. Whether the source is currently located in a “pristine” area or an area with numerous industrial and/or agricultural land uses that require education and surveillance, the way to ensure good water quality in the future is to act now to protect valuable water supply resources.

A community with a fully developed source water protection program will incorporate many strategies. For assistance in developing protection strategies please contact the Pocatello Regional Office of the Idaho Department of Environmental Quality or the Idaho Rural Water Association.

# SOURCE WATER ASSESSMENT FOR CITY OF INKOM, IDAHO

## Section 1. Introduction - Basis for Assessment

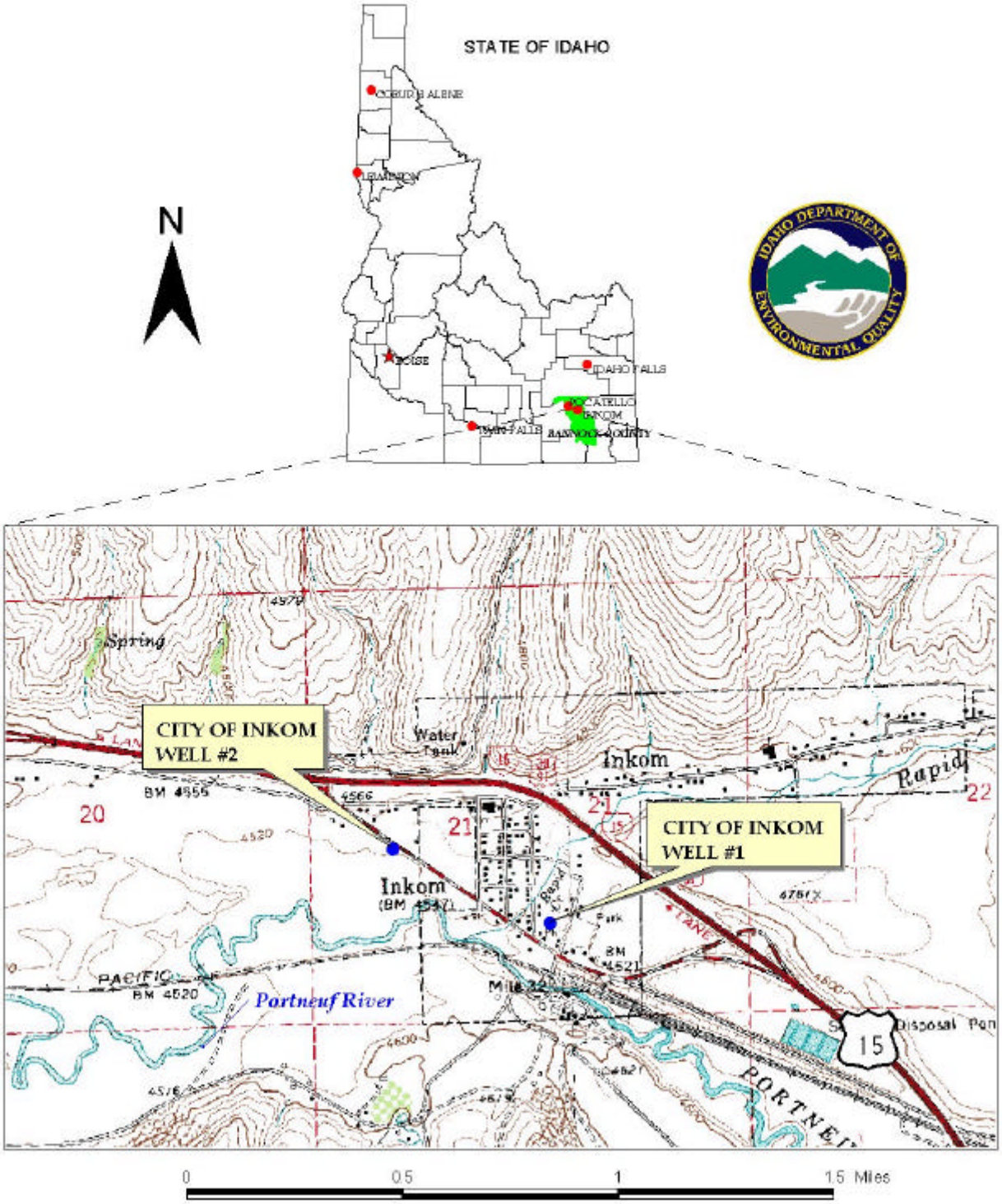
The following sections contain information necessary to understand how and why this assessment was conducted. **It is important to review this information to understand what the ranking of this source means.** A map showing the delineated source water assessment area and the inventory of significant potential sources of contamination identified within that area are contained in this report. The list of significant potential contaminant source categories and their rankings used to develop this assessment is also attached.

### Level of Accuracy and Purpose of the Assessment

The Idaho Department of Environmental Quality (DEQ) is required by the U.S. Environmental Protection Agency (EPA) to assess the over 2,900 public drinking water sources in Idaho for their relative susceptibility to contaminants regulated by the Safe Drinking Water Act. This assessment is based on a land use inventory of the delineated assessment area, sensitivity factors associated with the wells, and aquifer characteristics. All assessments must be completed by May of 2003. The resources and time available to accomplish assessments are limited. Therefore, an in-depth, site-specific investigation to identify each significant potential source of contamination for every public water system is not possible. **This assessment should be used as a planning tool, taken into account with local knowledge and concerns, to develop and implement appropriate protection measures for this source. The results should <u>not be</u> used as an absolute measure of risk and they should <u>not be</u> used to undermine public confidence in the water system.**

The ultimate goal of this assessment is to provide data to local communities to develop a protection strategy for their drinking water supply system. DEQ recognizes that pollution prevention activities generally require less time and money to implement than treating a public water supply system once it has been contaminated. DEQ encourages communities to balance resource protection with economic growth and development. The decision as to the amount and types of information necessary to develop a source water protection program should be determined by the local community based on its own needs and limitations. Wellhead or source water protection is one facet of a comprehensive growth plan, and it can complement ongoing local planning efforts.

*Figure 1 - Geographic Location of City of Inkom*



## Section 2. Conducting the Assessment

### General Description of the Source Water Quality

The City of Inkom has a community public drinking water system serving approximately 700 persons and is located in Bannock County (Figure 1). The water system consists of two well sources. Total coliform bacteria were detected in water sampling efforts of November 1993, February 1994, January 1995, and June 1999. Fecal coliform was detected in the water sampling efforts of January 1995. Nitrates were detected in Well #2 in August 1996 (3.5 mg/l), July 1997 (2.5 mg/L), July 1998 (2.5 mg/L), and November 1999 (2.1 mg/L). These levels are below the MCL for nitrate of 10 mg/L. The water system records copper at 2.44 mg/L (action level is 1.3 mg/L) in 1993 and 2.72 mg/L in 1994. The presence of the copper is mostly likely the result of copper piping in the distribution system. The primary water quality issues currently facing the City of Inkom are that of possible inorganic contaminants (IOCs) and possible volatile organic contaminants (VOCs) from nearby underground storage tank facilities, and the problems associated with managing this contamination.

### Defining the Zones of Contribution--Delineation

The delineation process establishes the physical area around a well that will become the focal point of the assessment. The process includes mapping the boundaries of the zone of contribution into time of travel zones (zones indicating the number of years necessary for a particle of water to reach a pumping well) for water in the aquifer. Dr. John Welhan of the Idaho Geological Survey used analytical computer models approved by the EPA to determine the 3-year (Zone 1B), 6-year (Zone 2), and 10-year (Zone 3) time of travel zones for wells where sufficient information on aquifer properties was available. Well-specific information was derived from a variety of sources including sanitary surveys, local well logs, and operator records. The actual data used by Dr. Welhan in determining the zones of contribution are available upon request. For the City of Inkom, Wells #1 and #2 draw water from the highly permeable Bonneville gravel aquifer in the lower Portneuf River Valley. The source water assessment area 10-year time of travel extends approximately 13 miles to the south of the City.

### Identifying Potential Sources of Contamination

A potential source of contamination is defined as any facility or activity that stores, uses, or produces, as a product or by-product, the contaminants regulated under the Safe Drinking Water Act and has a sufficient likelihood of releasing such contaminants at levels that could pose a concern relative to drinking water sources. The goal of the inventory process is to locate and describe those facilities, land uses, and environmental conditions that are potential sources of ground water contamination. The locations of potential sources of contamination within the delineation areas were obtained by field surveys conducted by DEQ and from available databases.

Land use within the City of Inkom consists of residential homes and small businesses. Homes within the City of Inkom are connected to a sewer system, while homes outside of town operate with individual septic systems. The City of Inkom has two wastewater treatment lagoons located to the west of the city.

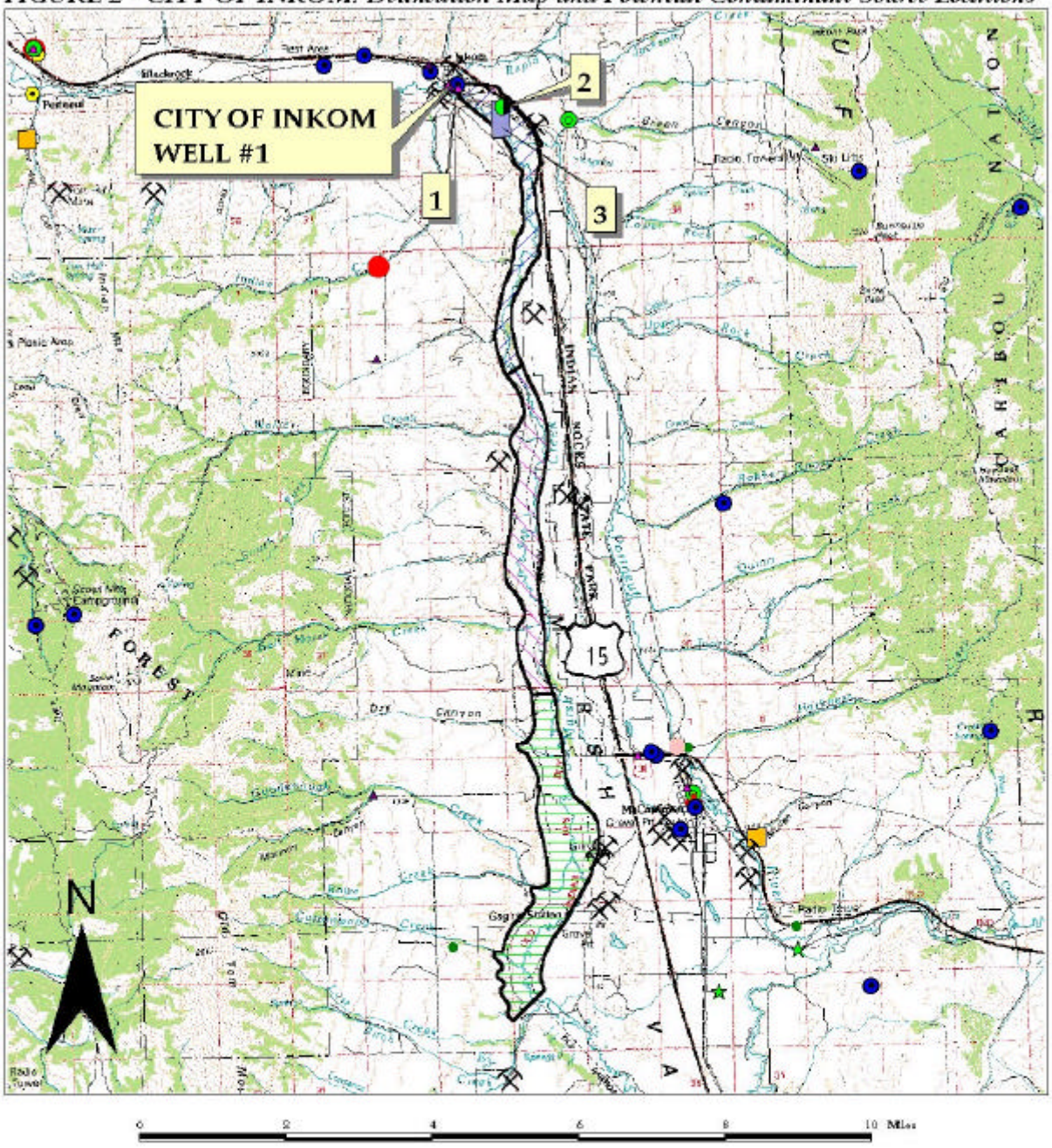
It is important to understand that a release may never occur from a potential source of contamination provided best management practices are used at the facility. Many potential sources of contamination are regulated at the federal level, state level, or both to reduce the risk of release. Therefore, when a business, facility, or property is identified as a potential contaminant source, this should not be interpreted to mean that this business, facility, or property is in violation of any local, state, or federal environmental law or regulation. What it does mean is that the potential for contamination exists due to the nature of the business, industry, or operation. There are a number of methods that water systems can use to work cooperatively with potential sources of contamination, such as educational visits and inspections of stored materials. Many owners of such facilities may not even be aware that they are located near a public water supply well.

**Contaminant Source Inventory Process**

A two-phased contaminant inventory of the study area was conducted during the summer of 2000. The first phase involved identifying and documenting potential contaminant sources within the City of Inkom Source Water Assessment Area through the use of computer databases and Geographic Information System (GIS) maps developed by DEQ. The second or enhanced phase of the contaminant inventory involved contacting the operator to validate the sources identified in phase one and to add any additional potential sources in the areas. This task was undertaken with the assistance of Mr. Jeff Koval, City of Inkom-Maintenance Department.

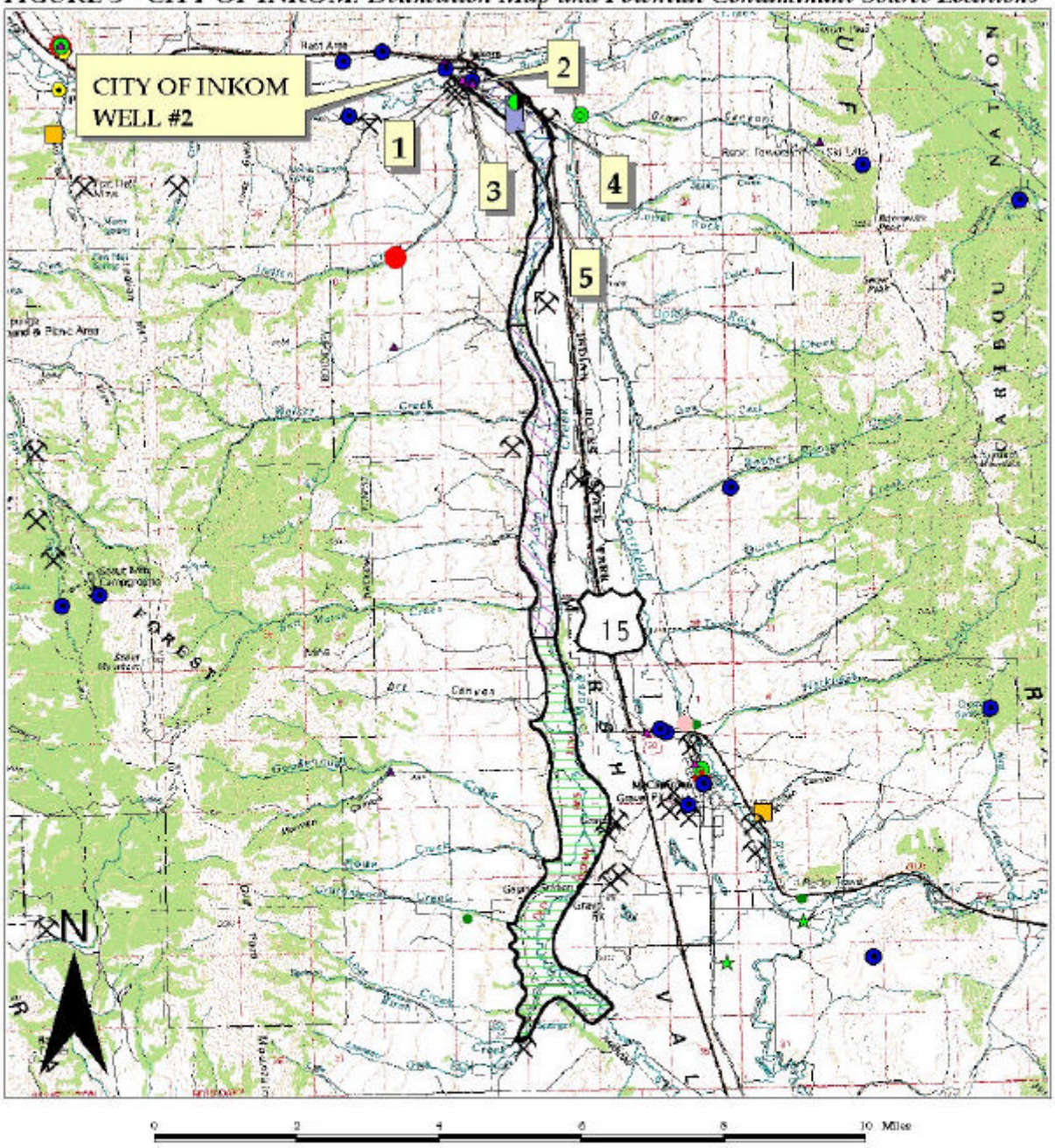
The City of Inkom Source Water Assessment Area has a total of eight potential contaminant sites within the delineated source water areas (Table 1). These potential sources of contamination include underground storage tank (UST) sites, a leaking underground storage tank (LUST) site, a municipal wastewater discharge site, and a wastewater land application site (Figure 2 & 3). Contaminants of concern are primarily business chemicals such as petroleum products. Table 1 lists the potential contaminants of concern, time of travel zones, and information sources

*FIGURE 2 - CITY OF INKOM: Delineation Map and Potential Contaminant Source Locations*




**PWS# 6030025**
**WELL #1**

*FIGURE 3 - CITY OF INKOM: Delineation Map and Potential Contaminant Source Locations*




**PWS# 6030025**
**WELL #2**

**Table 1. City of Inkom, Potential Contaminant Inventory**

| Well | SITE # | Source Description | TOT Zone (years) | Source of Information | Potential Contaminants |
|---|---|---|---|---|---|
| Well #1 | 1 | UST site | 0-3 | Database Inventory | VOC, SOC |
| Well #1 | 2 | Municipal Wastewater Discharge | 0-3 | Database Inventory | IOC |
| Well #1 | 3 | Land Application site | 0-3 | Database Inventory | IOC |
| | | | | | |
| Well #2 | 1 | LUST site | 0-3 | Database Inventory | VOC, SOC |
| Well #2 | 2 | UST site | 0-3 | Database Inventory | VOC, SOC |
| Well #2 | 3 | Former UST site | 0-3 | Database Inventory | VOC, SOC |
| Well #2 | 4 | Municipal Wastewater Discharge | 0-3 | Database Inventory | IOC |
| Well #2 | 5 | Land Application site | 0-3 | Database Inventory | IOC |

**UST = underground storage tank**
**TOT = time of travel (in years) for a potential contaminant to reach the wellhead**
**IOC = inorganic chemical, VOC = volatile organic chemical, SOC = synthetic organic chemical**

## Section 3. Susceptibility Analyses

The susceptibility of the sources to contamination were ranked as high, moderate, or low risk according to the following considerations: hydrologic characteristics, physical integrity of the well, land use characteristics, and potentially significant contaminant sources. The susceptibility rankings are specific to a particular potential contaminant or category of contaminants. Therefore, a high susceptibility rating relative to one potential contaminant does not mean that the water system is at the same risk for all other potential contaminants. The relative ranking that is derived for each well is a qualitative, screening-level step that, in many cases, uses generalized assumptions and best professional judgement. The following summaries describe the rationale for the susceptibility ranking.

### Hydrologic Sensitivity

Hydrologic sensitivity rated high for the two well sources (see Table 2). The soils in the delineations are considered to be in the moderate to well drainage class. No well log data was available for Well #1 to determine the make up of the vadose zone (zone from land surface to the water table). The vadose zone for Well #2 is composed predominately of gravel. The static water level for Well #2 is 11 feet below ground surface (bgs) based on well log information.

### Well Construction

Well construction directly affects the ability of the wells to protect the aquifer from contaminants. Lower scores imply a system that can better protect the water. The City of Inkom drinking water system consists of two wells that extract ground water for domestic and industrial uses. The well system construction rated moderate for both wells (Table 2). The completion of Well #1 is uncertain. Well #2 has a total depth of 100 feet bgs. The casing extends to 100 feet into the sand and gravel aquifer and the highest production unit occurs from 50 to 98 feet. The 2000 sanitary survey showed that the wellhead and sanitary seal for both wells are in compliance with DEQ regulations.

The Idaho Department of Water Resources (IDWR) *Well Construction Standards Rules (1993)* require all public water systems (PWSs) follow DEQ standards as well. IDAPA 58.01.08.550 requires that PWSs follow the *Recommended Standards for Water Works (1997)* during construction. Various aspects of the standards can be assessed from well logs. Table 1 of the *Recommended Standards for Water Works (1997)* states that 16-inch diameter steel casing requires a thickness of 0.375 inches. Well #2 uses 0.250-inch thick casing. The standards state that screen will be installed and have openings based on sieve analysis of the formation. Standard 3.2.4.1 requires all PWSs to have yield and drawdown tests that last "24 hours or until stabilized drawdown has continued for six hours at 1.5 times" the design pumping rate (Recommended Standards for Water Works, 1997).

**Potential Contaminant Source and Land Use**

The wells rated moderate for inorganic contaminants (IOCs) (i.e. barium, nitrate, copper), volatile organic contaminants (VOCs) (i.e. petroleum products), and low for synthetic organic contaminants (SOCs) (i.e. pesticides) and microbial contaminants. The predominant land use within the delineated capture zones is irrigated agricultural.

**Final Susceptibility Rating**

A detection above a drinking water standard Maximum Contaminant Level (MCL), any detection of a VOC or SOC, or a detection of total coliform or fecal coliform will automatically give a high susceptibility rating to the final well ranking despite the land use of the area because a pathway for contamination already exists. In this case, the final well ranking for Well #1 was high for IOC and microbial contaminants and moderate for VOC and SOC contaminants. Well #2 rated high for VOC, IOC, and microbial contaminants and moderate for SOC contaminants.

**Table 2. Summary of City of Inkom Susceptibility Evaluation**

| | **Susceptibility Scores** | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Hydrologic Sensitivity | Contaminant Inventory | | | | System Construction | **Final Susceptibility Ranking** | | | |
| Well | | IOC | VOC | SOC | Microbials | | IOC | VOC | SOC | Microbials |
| 1 | H | M | M | L | L | M | H | M | M | H |
| 2 | H | M | M | L | L | M | H | H | M | H |

**H = High Susceptibility, M = Moderate Susceptibility, L = Low Susceptibility**
**IOC = inorganic chemical, VOC = volatile organic chemical, SOC = synthetic organic chemical**

**Susceptibility Summary**

DEQ records indicate no detection of VOC or SOC contaminants in the drinking water. Irrigated agricultural land use and underground storage tank facilities in the delineated source areas of the wells contributed the largest numbers of points to the contaminant inventory rating. The wells were automatically given a high rating as a result of total coliform bacteria detections in the water supply (November 1993, February 1994, January 1995, & June 1999).

## Section 4. Options for Source Water Protection

The susceptibility assessment should be used as a basis for determining appropriate new protection measures or re-evaluating existing protection efforts. No matter what the susceptibility ranking a source receives, protection is always important. Whether the source is currently located in a "pristine" area or an area with numerous industrial and/or agricultural land uses that require education and surveillance, the way to ensure good water quality in the future is to act now to protect valuable water supply resources.

An effective source water protection program is tailored to the particular local source water protection area. A community with a fully developed source water protection program will incorporate many strategies. For the City of Inkom, source water protection activities should focus on implementation of practices aimed at keeping the distribution system free of microbial contaminants. The system should consider using disinfection if microbial problems arise and/or persist. The sanitary survey report stated that the water system must continue to monitor for copper in the water and provide customers with information regarding the health effects of excessive copper in the drinking water. Future well sites should be located in areas with as few potential sources of contamination as possible, and the site should be reserved and protected for this specific use. Management tools and activities can include regulatory approaches such as zoning ordinances, source prohibitions, and permits; or non-regulatory tools such as purchase of development rights or property, water conservation, and public education and information. Any new businesses that employ potentially harmful chemicals should be monitored as well. Land uses within most of the source water assessment area are beyond the control of the City of Inkom. Therefore, partnerships with state and local agricultural agencies and industry groups should be established to ensure future land uses are protective of ground water quality. Due to the time involved with the movement of ground water, wellhead protection activities should be aimed at long-term management strategies even though these strategies may not yield results in the near term. Source water protection activities for agriculture should be coordinated with the Idaho Department of Agriculture, the Soil Conservation Commission, the Portneuf Soil and Water Conservation District, and the Natural Resources Conservation Service.

**Assistance**

Public water supplies and others may call the following DEQ offices with questions about this assessment and to request assistance with developing and implementing a local protection plan. In addition, draft protection plans may be submitted to the DEQ office for preliminary review and comments.

Pocatello Regional DEQ Office (208) 236-6160

State DEQ Office (208) 373-0502

Website: http://www2.state.id.us/deq

Water suppliers serving fewer than 10,000 persons may contact John Bokor, Idaho Rural Water Association, at 1-800-962-3257 for assistance with wellhead protection strategies.

**References Cited**

Great Lakes-Upper Mississippi River Board of State and Provincial Public Health and Environment Managers, 1997. “Recommended Standards for Water Works.”

Idaho Department of Environmental Quality. 1997. Design Standards for Public Drinking Water Systems. IDAPA 58.01.08.550.01.

Idaho Department of Water Resources, 1993. Administrative Rules of the Idaho Water Resource Board: Well Construction Standards Rules. IDAPA 37.03.09.

Idaho Department of Environmental Quality. 2000. *City of Inkom Sanitary Survey Report*

Welhan, J. 2000. Idaho Geologic Survey. *SWA Capture Zone Delineations, Lower Portneuf and Marsh Valleys*

# Potential Contaminant Inventory List of Acronyms and Definitions

**AST (Aboveground Storage Tanks) –** Sites with aboveground storage tanks.

**Business Mailing List –** This list contains potential contaminant sites identified through a yellow pages database search of standard industry codes (SIC).

**CERCLIS –** This includes sites considered for listing under the **Comprehensive Environmental Response Compensation and Liability Act (CERCLA)**. CERCLA, more commonly known as "Superfund" is designed to clean up hazardous waste sites that are on the national priority list (NPL).

**Cyanide Site –** DEQ permitted and known historical sites/facilities using cyanide.

**Dairy –** Sites included in the primary contaminant source inventory represent those facilities regulated by Idaho State Department of Agriculture (ISDA) and may range from a few head to several thousand head of milking cows.

**Deep Injection Well –** Injection wells regulated under the Idaho Department of Water Resources generally for the disposal of stormwater runoff or agricultural field drainage.

**Enhanced Inventory** – Enhanced inventory locations are potential contaminant source sites added by the water system. These can include new sites not captured during the primary contaminant inventory, or corrected locations for sites not properly located during the primary contaminant inventory. Enhanced inventory sites can also include miscellaneous sites added by the Idaho Department of Environmental Quality (IDEQ) during the primary contaminant inventory.

**Floodplain –** This is a coverage of the 100year floodplains.

**Group 1 Sites –** These are sites that show elevated levels of contaminants and are not within the priority one areas.

**Inorganic Priority Area –** Priority one areas where greater than 25% of the wells/springs show constituents higher than primary standards or other health standards.

**Landfill –** Areas of open and closed municipal and non-municipal landfills.

**LUST (Leaking Underground Storage Tank)** – Potential contaminant source sites associated with leaking underground storage tanks as regulated under RCRA.

**Mines and Quarries** – Mines and quarries permitted through the Idaho Department of Lands.)

**Nitrate Priority Area –** Area where greater than 25% of wells/springs show nitrate values above 5mg/l.

**NPDES (National Pollutant Discharge Elimination System) –** Sites with NPDES permits. The Clean Water Act requires that any discharge of a pollutant to waters of the United States from a point source must be authorized by an NPDES permit.

**Organic Priority Areas –** These are any areas where greater than 25 % of wells/springs show levels greater than 1% of the primary standard or other health standards.

**Recharge Point –** This includes active, proposed, and possible recharge sites on the Snake River Plain.

**RICRIS –** Site regulated under **Resource Conservation Recovery Act (RCRA)**. RCRA is commonly associated with the cradle to grave management approach for generation, storage, and disposal of hazardous wastes.

**SARA Tier II (Superfund Amendments and Reauthorization Act Tier II Facilities) –** These sites store certain types and amounts of hazardous materials and must be identified under the Community Right to Know Act.

**Toxic Release Inventory (TRI)** – The toxic release inventory list was developed as part of the Emergency Planning and Community Right to Know (Community Right to Know) Act passed in 1986. The Community Right to Know Act requires the reporting of any release of a chemical found on the TRI list.

**UST (Underground Storage Tank) –** Potential contaminant source sites associated with underground storage tanks regulated as regulated under RCRA.

**Wastewater Land Applications Sites** – These are areas where the land application of municipal or industrial wastewater is permitted by IDEQ.

**Wellheads –** These are drinking water well locations regulated under the Safe Drinking Water Act. They are not treated as potential contaminant sources.

**NOTE:** Many of the potential contaminant sources were located using a geocoding program where mailing addresses are used to locate a facility. Field verification of potential contaminant sources is an important element of an enhanced inventory.

Where possible, a list of potential contaminant sites unable to be located with geocoding will be provided to water systems to determine if the potential contaminant sources are located within the source water assessment area.

# Attachment A

# City of Inkom
# Susceptibility Analysis
# Worksheet

The final scores for the susceptibility analysis were determined using the following formulas:

1) VOC/SOC/IOC Final Score = Hydrologic Sensitivity + System Construction + (Potential Contaminant/Land Use x 0.2)

2) 2) Microbial Final Score = Hydrologic Sensitivity + System Construction + (Potential Contaminant/Land Use x 0.35)

Final Susceptibility Scoring:

0 - 5 Low Susceptibility

6 - 12 Moderate Susceptibility

≥ 13 High Susceptibility

Ground Water Susceptibility Report  Public Water System Name : INKOM CITY OF  Well#1

Public Water System Number 6030025

| 1. System Construction | | SCORE | | | |
|---|---|---|---|---|---|
| Drill Date | | | | | |
| Driller Log Available | NO | | | | |
| Sanitary Survey (if yes, indicate date of last survey) | YES | 2000 | | | |
| Well meets IDWR construction standards | NO | 1 | | | |
| Wellhead and surface seal maintained | YES | 0 | | | |
| Casing and annular seal extend to low permeability unit | NO | 2 | | | |
| Highest production 100 feet below static water level | NO | 1 | | | |
| Well located outside the 100 year flood plain | YES | 0 | | | |
| | Total System Construction Score | 4 | | | |
| 2. Hydrologic Sensitivity | | | | | |
| Soils are poorly to moderately drained | NO | 2 | | | |
| Vadose zone composed of gravel, fractured rock or unknown | YES | 1 | | | |
| Depth to first water > 300 feet | NO | 1 | | | |
| Aquitard present with > 50 feet cumulative thickness | NO | 2 | | | |
| | Total Hydrologic Score | 6 | | | |
| 3. Potential Contaminant / Land Use - ZONE 1A | | IOC Score | VOC Score | SOC Score | Microbial Score |
| Land Use Zone 1A | IRRIGATED PASTURE | 1 | 1 | 1 | 1 |
| Farm chemical use high | NO | 0 | 0 | 0 | |
| IOC, VOC, SOC, or Microbial sources in Zone 1A | YES | NO | NO | NO | YES |
| | Total Potential Contaminant Source/Land Use Score - Zone 1A | 1 | 1 | 1 | 1 |
| Potential Contaminant / Land Use - ZONE 1B | | | | | |
| Contaminant sources present (Number of Sources) | YES | 2 | 1 | 0 | 0 |
| (Score = # Sources X 2 ) 8 Points Maximum | | 4 | 2 | 0 | 0 |
| Sources of Class II or III leacheable contaminants or | YES | 6 | 1 | 0 | |
| 4 Points Maximum | | 4 | 1 | 0 | |
| Zone 1B contains or intercepts a Group 1 Area | NO | 0 | 0 | 0 | 0 |
| Land use Zone 1B | Greater Than 50% Irrigated Agricultural Land | 4 | 4 | 4 | 4 |
| | Total Potential Contaminant Source / Land Use Score - Zone 1B | 12 | 7 | 4 | 4 |
| Potential Contaminant / Land Use - ZONE II | | | | | |
| Contaminant Sources Present | NO | 0 | 0 | 0 | |
| Sources of Class II or III leacheable contaminants or | YES | 1 | 0 | 0 | |
| Land Use Zone II | Greater Than 50% Irrigated Agricultural Land | 2 | 2 | 2 | |
| | Potential Contaminant Source / Land Use Score - Zone II | 3 | 2 | 2 | 0 |
| Potential Contaminant / Land Use - ZONE III | | | | | |
| Contaminant Source Present | NO | 0 | 0 | 0 | |
| Sources of Class II or III leacheable contaminants or | YES | 1 | 0 | 0 | |
| Is there irrigated agricultural lands that occupy > 50% of | YES | 1 | 1 | 1 | |
| | Total Potential Contaminant Source / Land Use Score - Zone III | 2 | 1 | 1 | 0 |
| Cumulative Potential Contaminant / Land Use Score | | 18 | 11 | 8 | 5 |
| 4. Final Susceptibility Source Score | | 14 | 12 | 12 | 12 |
| 5. Final Well Ranking | | High | Moderate | Moderate | High |

Ground Water Susceptibility Report  Public Water System Name : INKOM CITY OF  Well#2

Public Water System Number  6030025

| 1. System Construction | | SCORE | | | |
|---|---|---|---|---|---|
| Drill Date | 5/16/75 | | | | |
| Driller Log Available | YES | | | | |
| Sanitary Survey (if yes, indicate date of last survey) | YES | 2000 | | | |
| Well meets IDWR construction standards | NO | 1 | | | |
| Wellhead and surface seal maintained | YES | 0 | | | |
| Casing and annular seal extend to low permeability unit | NO | 2 | | | |
| Highest production 100 feet below static water level | NO | 1 | | | |
| Well located outside the 100 year flood plain | YES | 0 | | | |
| | Total System Construction Score | 4 | | | |
| 2. Hydrologic Sensitivity | | | | | |
| Soils are poorly to moderately drained | NO | 2 | | | |
| Vadose zone composed of gravel, fractured rock or unknown | YES | 1 | | | |
| Depth to first water > 300 feet | NO | 1 | | | |
| Aquitard present with > 50 feet cumulative thickness | NO | 2 | | | |
| | Total Hydrologic Score | 6 | | | |
| 3. Potential Contaminant / Land Use - ZONE 1A | | IOC Score | VOC Score | SOC Score | Microbial Score |
| Land Use Zone 1A | IRRIGATED PASTURE | 1 | 1 | 1 | 1 |
| Farm chemical use high | NO | 0 | 0 | 0 | |
| IOC, VOC, SOC, or Microbial sources in Zone 1A | YES | NO | NO | NO | YES |
| | Total Potential Contaminant Source/Land Use Score - Zone 1A | 1 | 1 | 1 | 1 |
| Potential Contaminant / Land Use - ZONE 1B | | | | | |
| Contaminant sources present (Number of Sources) | YES | 2 | 3 | 1 | 0 |
| (Score = # Sources X 2 ) 8 Points Maximum | | 4 | 6 | 2 | 0 |
| Sources of Class II or III leacheable contaminants or | YES | 6 | 3 | 0 | |
| 4 Points Maximum | | 4 | 3 | 0 | |
| Zone 1B contains or intercepts a Group 1 Area | NO | 0 | 0 | 0 | 0 |
| Land use Zone 1B | Greater Than 50% Irrigated Agricultural Land | 4 | 4 | 4 | 4 |
| | Total Potential Contaminant Source / Land Use Score - Zone 1B | 12 | 13 | 6 | 4 |
| Potential Contaminant / Land Use - ZONE II | | | | | |
| Contaminant Sources Present | NO | 0 | 0 | 0 | |
| Sources of Class II or III leacheable contaminants or | YES | 1 | 0 | 0 | |
| Land Use Zone II | Greater Than 50% Irrigated Agricultural Land | 2 | 2 | 2 | |
| | Potential Contaminant Source / Land Use Score - Zone II | 3 | 2 | 2 | 0 |
| Potential Contaminant / Land Use - ZONE III | | | | | |
| Contaminant Source Present | NO | 0 | 0 | 0 | |
| Sources of Class II or III leacheable contaminants or | YES | 1 | 0 | 0 | |
| Is there irrigated agricultural lands that occupy > 50% of | YES | 1 | 1 | 1 | |
| | Total Potential Contaminant Source / Land Use Score - Zone III | 2 | 1 | 1 | 0 |
| Cumulative Potential Contaminant / Land Use Score | | 18 | 17 | 10 | 5 |
| 4. Final Susceptibility Source Score | | 14 | 13 | 12 | 12 |
| 5. Final Well Ranking | | High | High | Moderate | High |